Unless otherwise stated by your professor, you are to:

- Utilize at least four line weights to construct plan, section, elevation, and other technical drawings to demonstrate an understanding of spatial depth in a two-dimensional format. This includes construction of well-formed lines that register a point of beginning and ending and are continuous in density and quality. See examples contained in this document.

- Appropriately letter all drawing titles, names, or any other written work that may be required for design coursework. All fonts used for typed papers or sheets and drawings composed with the use of a computer should be sans-serif (e.g., Arial, Calibri, Century Gothic, Tahoma, or Verdana). See lettering example contained in this document.

- Use acceptable graphic designations such as north arrows, graphic scales, section cut indicators, landscaping and entourage. This type of supportive information, while it may be manipulated to support graphic content (change in color, placement, etc.), should remain consistent throughout the visual presentation of a project (i.e., across a layout, from board to board). See examples contained in this document.
Line Quality and Line Weight

Line Quality refers to the crispness and the darkness (weight intensity) of a line. The darkness of a line is governed by the pencil used and the pressure applied. Inked lines generally have uniform value but can vary in width. It is extremely important to be consistent in drawing the same type of lines (Yee, 2007, p. 36). Additionally, for consistent line quality, “pull the pen or pencil in the direction of the line being drawn” (Ching & Juroszek, 1998, p. 118). Do not push the pen or pencil, “as this makes it difficult to control the quality of the line” (p. 118). When drawing with lead, “it is important to have a well-sharpened point that is neither too stubby nor too rounded” (p. 118). In order to maintain lead sharpness and line uniformity, rotate or roll the drawing instrument between your thumb and forefinger as the line is pulled. To achieve a line that has a defined beginning and end, “back up slightly and exert a little extra pressure” at the start and the finish of each stroke; at the same time, maintain a steady pace throughout (p. 118).

Line weight refers to the width or thickness of a line in its attempt to make spatial (depth in an elevation), diagrammatic (hierarchy), functional (guidelines), etc. distinctions. While it may be a time-saver or “common practice to use one lead and vary the pressure to give the desired line weight” (Yee, 2007, p. 32), adhere to the following guidelines until you can demonstrate a correct understanding of the use of line weight.

Heavy line weights “delineate the profiles of plan and section cuts as well as spatial edges” (Ching, 2009, p. 18). Spatial edges “depict where solid matter meets spatial void” (Ching & Juroszek, 1998, p. 117); it is where the “boundaries of a form [are] separated from the background by some intervening space” (Ching, 2009, p. 93).

Medium line weights indicate “the edges and intersections of planes” (Ching, 2009, p. 18). This includes lines that describe “contours appearing within the outer silhouette of a three-dimensional volume” (Ching & Juroszek, 1998, p. 117); known as planar corners, “it is the intersection of two or more planes that are visible to the eye” (Ching, 2009, p. 93).

Light line weights describe shallow changes in depth associated with close surfaces or planes.

Very light line weights “suggest a change in material, color, or texture, without a change in the form of an object” (Ching, 2009, p. 18). These may also be called surface lines. This line weight is also used to “layout drawings, establish organizing grids, and indicate surface textures” (Ching, 2009, p. 18), as well as for any other necessary guidelines.

Note: “The visible range and contrast of line weights should be in proportion to the size and scale of a drawing” (Ching, 2009, p. 18). AutoCAD and Revit sizes indicate specific plot style and template designations. See Computer Application courses for further guidance. AutoCAD provided by H. Hall (HALLSPLOT.ctb); Revit provided by J. Myers.
Heavy line weight is used to indicate the profiles of cut materials. A tonal value (poché) may be included inside the cut profile to increase contrast.

Medium line weight is used to indicate edges of horizontal surfaces that are below the cut plane but above the floor. "The greater the vertical drop from one horizontal surface to the next, the heavier the line weight; the further away a horizontal surface is from the plane of the plan cut, the lighter the line weight" (Ching & Juroszek, 1998, p. 136).

Light (and very light) line weight is used to indicate surface lines (material, pattern, or texture) on floor or other horizontal surface.

Heavy line weight is used to indicate the profiles of cut materials. A tonal value (poché) may be included inside the cut profile to increase contrast.

Medium line weight is used to indicate edges of surfaces in elevation beyond. "A decreasing line weight delineates the edges of progressively more distant objects from the plane of the cut" (Ching, 1996, p. 158).

Light (and very light) line weight is used to indicate surface lines (material, pattern, or texture) on vertical surfaces parallel to the picture plane.

- The heaviest line weight indicates the ground line cut. The next heaviest line weight “profiles the planes closest to the plane of projection” (Ching & Juroszek, 1998, p. 152).
- Medium line weight indicates distance from picture plane, progressively getting lighter to describe objects further from the picture plane.
- Light (and very light) line weight is used to indicate surface lines (material, pattern, or texture) on vertical surfaces parallel to the picture plane.


- The heaviest line weight indicates spatial edges.
- Medium line weight indicates planar corners, where two or more planes intersect.
- Light (and very light) line weight is used to indicate surface lines (material, pattern, or texture).
Lettering

- "The most important characteristic of lettering is legibility", including "readability and consistency in both style and spacing" (Ching, 2009, p. 203-204). Make use of guidelines when lettering, "to control the height and line spacing" and "maintain similar proportions among the characters" through continuous lines of text (p. 204). When used in presentation formats, text should have visual hierarchy; arrange titles, subtitles, and other text or identifying information in "descending order of visual importance" (Yee, 2007, p. 25). In computer fonts, remember that "the character of the typeface should be appropriate to the design being presented and not detract from the drawings themselves" (Ching, 2009, p. 203). Additionally, text should be of an appropriate scale relative to the drawing and the distance it must be read from.

Lettering Example: Font. This lettering example is provided as a guide for font. The strokes are developed as indicated by the arrows above. Fonts without serifs are the common practice of this department.
• Graphic Designations

Graphic Scale (Ching, 1996, p. 146).

Section Cut Indicator (Ching, 1996, p. 146).


References


